

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-9 (canceled).

Claim 10 (new): A noise filter for removing noise flowing in a signal wire located on a circuit board, the noise filter comprising:

an insulator;

a pair of external electrodes that are connected to the signal wire and are disposed on an outside of the insulator;

a plurality of coils connected in series, disposed inside of the insulator, and having both ends thereof electrically connected to the external electrodes, respectively; and

a capacitor connected in parallel to at least one of the plurality of coils; wherein each of the plurality of coils includes a plurality of coil conductors disposed in the insulator, the plurality of coil conductors being arranged in a spiral configuration and connected to each other through a via hole; and

the capacitor includes a shield electrode and a capacitance-forming electrode opposed to each other through the insulator, the shield electrode being located between upstream and downstream coils of the plurality of coils and commonly electrically connected to both the upstream and downstream coils, the capacitance-forming electrode being electrically connected to one of the pair of external electrodes.

Claim 11 (new): The noise filter according to Claim 10, wherein the shield electrode has a surface area that is equal to or greater than about 1/2 of a surface area of a bore of at least one of the upstream and downstream coils.

Claim 12 (new): The noise filter according to Claim 10, wherein a plurality of LC parallel resonant circuits having different resonance frequencies are defined by the plurality of coils and the capacitor individually connected in parallel to each of the plurality of coils.

Claim 13 (new): The noise filter according to Claim 10, wherein an LC parallel resonant circuit on a low frequency side is defined by one of the plurality of coils, the capacitor connected in parallel to the one of the plurality of coils, and a floating capacitor generated due to the presence of the one of the plurality of coils, and an LC parallel resonant circuit on a high frequency side is defined by another one of the plurality of coils and a floating capacitor generated due to the presence of the another one of the plurality of coils.

Claim 14 (new): A noise filter array comprising a plurality of the noise filters according to Claim 10, wherein the plurality of the noise filters are integrated together while being arranged in an array individually in correspondence with a plurality of signal wires located on a circuit board.

Claim 15 (new): The noise filter array according to Claim 14, wherein connecting points between the plurality of coils provided for each of the signal wires are commonly connected together in an ungrounded state via a noise dispersing capacitor.

Claim 16 (new): A noise filter for removing noise flowing in a signal wire located on a circuit board, the noise filter comprising:

- an insulator;

- a pair of external electrodes that are connected to the signal wire and are disposed on an outside of the insulator;

- a plurality of coils connected in series, disposed inside of the insulator, and having both ends thereof electrically connected to the external electrodes, respectively;
- and

a capacitor connected in parallel to at least one of the plurality of coils; wherein each of the plurality of coils includes a plurality of coil conductors disposed in the insulator, the plurality of coil conductors being arranged in a spiral configuration and connected to each other through a via hole; and

the capacitor includes the plurality of coil conductors and a capacitance-forming electrode arranged so as to be opposed to each other through the insulator, the capacitance-forming electrode being electrically connected to one of the pair of external electrodes.

Claim 17 (new): The noise filter according to Claim 16, wherein a shield electrode is disposed between upstream and downstream coils of the plurality of coils so as to be substantially perpendicular to a coil axis direction of the plurality of coils.

Claim 18 (new): The noise filter according to Claim 17, wherein the shield electrode has a surface area that is equal to or greater than about 1/2 of a surface area of a bore of at least one of the upstream and downstream coils.

Claim 19 (new): The noise filter according to Claim 16, wherein a plurality of LC parallel resonant circuits having different resonance frequencies are defined by the plurality of coils and the capacitor individually connected in parallel to each of the plurality of coils.

Claim 20 (new): The noise filter according to Claim 16, wherein an LC parallel resonant circuit on a low frequency side is defined by one of the plurality of coils, the capacitor connected in parallel to the one of the plurality of coils, and a floating capacitor generated due to the presence of the one of the plurality of coils, and an LC parallel resonant circuit on a high frequency side is defined by another one of the plurality of coils and a floating capacitor generated due to the presence of the another one of the plurality of coils.

Claim 21 (new): A noise filter array comprising a plurality of the noise filters according to Claim 16, wherein the plurality of the noise filters are integrated together while being arranged in an array individually in correspondence with a plurality of signal wires located on a circuit board.

Claim 22 (new): The noise filter array according to Claim 21, wherein connecting points between the plurality of coils provided for each of the signal wires are commonly connected together in an ungrounded state via a noise dispersing capacitor.

Claim 23 (new): A noise filter for removing noise flowing in a signal wire located on a circuit board, the noise filter comprising:

an insulator;

a pair of external electrodes that are connected to the signal wire and are disposed on an outside of the insulator;

a plurality of coils connected in series, disposed inside of the insulator, and having both ends thereof electrically connected to the external electrodes, respectively; and

a capacitor connected in parallel to at least one of the plurality of coils; wherein each of the plurality of coils includes a plurality of coil conductors disposed in the insulator, the plurality of coil conductors being arranged in a spiral configuration and connected to each other through a via hole; and

the capacitor includes one of the pair of external electrodes and a shield electrode arranged so as to be opposed to each other through the insulator, the shield electrode being located between upstream and downstream coils of the plurality of coils and electrically connected to both the upstream and downstream coils.

Claim 24 (new): The noise filter according to Claim 23, wherein the shield electrode has a surface area that is equal to or greater than about 1/2 of a surface area of a bore of at least one of the upstream and downstream coils.

Claim 25 (new): The noise filter according to Claim 23, wherein a plurality of LC parallel resonant circuits having different resonance frequencies are defined by the plurality of coils and the capacitor individually connected in parallel to each of the plurality of coils.

Claim 26 (new): The noise filter according to Claim 23, wherein an LC parallel resonant circuit on a low frequency side is defined by one of the plurality of coils, the capacitor connected in parallel to the one of the plurality of coils, and a floating capacitor generated due to the presence of the one of the plurality of coils, and an LC parallel resonant circuit on a high frequency side is defined by another one of the plurality of coils and a floating capacitor generated due to the presence of the another one of the plurality of coils.

Claim 27 (new): A noise filter array comprising a plurality of the noise filters according to Claim 23, wherein the plurality of the noise filters are integrated together while being arranged in an array individually in correspondence with a plurality of signal wires located on a circuit board.

Claim 28 (new): The noise filter array according to Claim 27, wherein connecting points between the plurality of coils provided for each of the signal wires are commonly connected together in an ungrounded state via a noise dispersing capacitor.